

JING FENG

Associate Professor, Department of Psychology, North Carolina State University
Campus Box 7650, Raleigh, North Carolina, USA, 27695-7650 | 919-515-3411 | jing_feng@ncsu.edu
www.jfenglab.com

Education

Ph.D. in Cognitive and Engineering Psychology, University of Toronto, Toronto, Ontario, Canada	2011
M.A. in Cognitive and Engineering Psychology, University of Toronto, Toronto, Ontario, Canada	2006
B.Sc. in Applied Psychology, Zhejiang University, Hangzhou, Zhejiang, China	2005

Academic Appointments

Associate Professor , Department of Psychology, NC State University	2019 –
Adjunct Faculty , Department of Industrial and Systems Engineering, NC State University	2018 –
Affiliate Faculty , Institute of Transportation Research and Education, NC State University	2017 –
Assistant Professor , Department of Psychology, NC State University	2013 – 2019
Post-Doctoral Fellow , Department of Mechanical and Industrial Engineering, University of Toronto	2012 – 2013
Post-Doctoral Fellow , Rotman Research Institute, Baycrest Center for Geriatric Care	2011 – 2012
Graduate Researcher , Department of Psychology, University of Toronto	2005 – 2011

Research Interests

Attention, cognitive aging, cognitive training and intervention, human factors in driving and display design

With a focus on *theory and practice of attention*, four specific areas of my work are:

- Attention and safety implications in drivers' interaction with automated vehicle technologies
 - Attention and driver distraction
 - Cognitive aging in attention, driving safety, and brain plasticity
 - Information displays to facilitate attentional processing in driving and human-computer interaction
-

Grants

Research Funding (\$2.7M+ in total, 894k+ as PI)

“Integrating Human Wearers Perception and Cognition into Prosthesis Control Policy” (**10/2019-09/2022**), He Huang, Jing Feng (**Co-PI**). Funding agency: National Science Foundation (**\$787,711**).

“DO9 Task Order – Anticipatory Thinking” (**01/2019-12/2019**), Jing Feng (**PI**). Funding agency: Laboratory for Analytic Sciences (**\$81,705**).

“Leverage Augmented Reality for Safety Education in the Logistics Industry” (**09/2018-08/2021**), Xu Xu, Karen Chen, Jing Feng (**Co-PI**), Tianfu Wu. Funding agency: National Science Foundation (**\$749,542**).

“Address the Challenges of Older Drivers in North Carolina using Modern Technologies” (continuing grant, **10/2018-09/2019**), Jing Feng (**PI**). Funding agency: North Carolina Department of Transportation / National Highway Transportation Safety Administration (**\$149,886**).

“Tracking the body, tracking the mind: inferring drivers’ mental states from in-car body motion” (07/2018-06/2019), Xu Xu, Jing Feng (Co-PI), Karen Chen. Funding agency: NC State University Research and Innovation Seed Funding (RISF) Program (\$31,692).

“Assess and optimize advanced building glazing technologies for lighting, energy and health outcomes” (07/2018-01/2020), Wayne Place, Jianxin Hu, Steve Terry, Jing Feng (Co-PI), Traci Rider. Funding agency: NC State University Research and Innovation Seed Funding (RISF) Program (\$35,240).

“Enhancing Autonomous Vehicle Traffic Safety through Pedestrian Detection, Classification and Communication” (08/2018-07/2020), Mathew Palmer, Sarah O’Brien, Seth Hollar, Jing Feng (Co-PI), Abdollah Homaifar, Ali Karimodini. Funding agency: North Carolina Department of Transportation (\$199,396).

“Address the Challenges of Older Drivers in North Carolina using Modern Technologies” (continuing grant, 10/2017-09/2018), Jing Feng (PI), Arthur Goodwin, Robert Foss. Funding agency: North Carolina Department of Transportation / National Highway Transportation Safety Administration (\$120,909).

“Designing In-Vehicle Message Delivery with Manual and Highly Automated Driving” (07/2017-12/2019), Jing Feng (PI), David Kaber, Christopher Cunningham. Funding agency: North Carolina Department of Transportation (\$199,950).

“DO7 Task Order – Infrastructure, Cyber Security” (01/2017-12/2018), Jing Feng (PI). Funding agency: Laboratory for Analytic Sciences (\$220,549).

“Address the Challenges of Older Drivers in North Carolina using Modern Technologies” (10/2016-09/2017), Jing Feng (PI), Arthur Goodwin, Robert Foss. Funding agency: North Carolina Department of Transportation / National Highway Transportation Safety Administration (\$91,729).

“An Advanced NC State Driving Simulator” (07/2015-06/2017), David Kaber, Chris Cunningham, Jing Feng (Co-PI), Nagui Roupail. Funding agency: North Carolina State University (\$89,000).

“Optimizing User Learning: The Road to Becoming SAS Savvy” (10/2014-08/2015), Jing Feng (PI), Michael Geden. Funding agency: SAS. (\$23,959).

“Fitness-to-drive: development and validation of a measurement tool” (01/2014-09/2014), Jing Feng (PI). Funding agency: CHASS Scholarship and Research Award – College of Humanities and Social Sciences, North Carolina State University (\$4,000).

Funding under Review:

“DO10 Task Order – Analytic Rigor” (submitted), Jing Feng (PI). Funding agency: Laboratory for Analytic Sciences.

“Driver Vigilance Framework for Level 2 and Level 3 Automated Vehicles” (submitted), Sheryl Miller (PM; toXcel), David Kaber (Co-PI), Jing Feng (Co-PI). Funding agency: US Department of Transportation.

“FW-HTF-RL: Build Future Skilled Technical Workforce by Leveraging an Augmented Reality-Assisted Intelligent Training System” (submitted), Xu Xu, Karen Chen, Tianfu Wu, Jing Feng (Co-PI), Yunan Liu, Jeffrey Hoyle, Jason Low. Funding agency: National Science Foundation.

Global Engagement and Partnership Development

North Carolina International Travel Assistance Fund (06/2016-07/2017), Jing Feng. Funding agency: University International Affairs, College of Humanities and Social Sciences, North Carolina State University (\$2,000).

Awards and Scholarships

University Faculty Scholar, North Carolina State University (2018)

Outstanding Junior Faculty Award, College of Humanities and Social Sciences, North Carolina State University (2017)

Nominated for Stephanie Binder Young Professional Award of the Human Factors and Ergonomics Society Surface Transportation Technical Group (2016)
 Nominated for the NC State Graduate School Outstanding Graduate Faculty Mentor Award (2016)
 University of Toronto Fellowship, University of Toronto (2005-2011)
 Frederic Hudd Scholarship, Massey College, University of Toronto (2006-2008)
 Massey College Academic Travel Grant, Massey College, University of Toronto (2006-2008)
 The Faculty of Art and Science's Graduate Student Conference Travel Grant, University of Toronto (2007-2008)
 Outstanding Student Fellowship, Zhejiang University (2003-2004)
 Excellent student Award, Zhejiang University (2003-2004)
 Excellent Bachelor Thesis Award, Zhejiang University (2003-2004)
 Excellent Achievement Scholarship, Zhejiang University (2001-2002)

Publications

* indicates student co-author

Peer reviewed journal articles

1. Sall, R.* & **Feng, J.** (2019). Dual-Target Hazard Perception: Correctly Identifying One Hazard Hinders Driver's Capacity to Find a Second. *Accident, Analysis and Prevention*, 131, 213-224.
<https://doi.org/10.1016/j.aap.2019.06.016>
2. **Feng, J.**, Sanchez, J.*, Sall, R.*, Lyons, S., & Nam, C. (2019). Emotion facilitates human-human reliance when using automation in high risk situations. *Military Psychology*. DOI: 10.1080/08995605.2019.1630227
3. Choi, H.* , Kasko, J.* , & **Feng, J.** (2019). Attention assessment technology for monitoring and intervention for older drivers' crash risks in various hazardous situations. *The Gerontologist*, 59(1), 112-123.
4. Geden, M.* , Staicu, A., & **Feng, J.** (2018). Reduced target facilitation and increased distractor suppression during mind wandering. *Experimental Psychology*, 65(6), 345-352.
5. Kim, B.* , Joines, S., Elinchum, R., & **Feng, J.** (2018). Usability study to improve interaction design for drivers in car-sharing system. *Journal of Usability Studies*, 13(4), 220-247.
6. Namian, M.* , Albert, A., & **Feng, J.** (2018). Effects of distraction on hazard recognition and safety risk perception. *Journal of Construction Engineering and Management*, 144(4): 04018008.
7. Zhu, M., Rudisill, T. M., Rauscher, K. J., Davidov, D. M., & **Feng, J.** (2018). Risk perception of cellphone use while driving: Results from a delphi survey. *International Journal of Environmental Research and Public Health*, 15(6), 1074: 10.3390/ijerph15061074.
8. **Feng, J.**, Choi, H.* , Craik, F. I. M., Levine, B., Moreno, S., Naglie, G., & Zhu, M. (2018). Adaptive response criterion in road hazard detection among older drivers. *Traffic Injury Prevention*, 19(2), 141-146.
9. Geden, M.* , Staicu, A., & **Feng, J.** (2018). The impact of perceptual load and time on mind wandering while driving. *Transportation Research Part F: Traffic Psychology and Behaviour*, 57, 75-83.
10. Choi, H.* , Geden, M.* , & **Feng, J.** (2017). Mind wanders more in images when performing a visual concurrent task. *PLOS ONE*, 12(2):e0189667.
11. Shen, S., Koech, W., **Feng, J.**, & Zhu, M. (2017). Older adults' travel patterns in the United States in 2015. *BMJ Open*, 7(8):e015780.
12. **Feng, J.**, & Spence, I. (2017). The effects of spatial endogenous pre-cueing across eccentricities. *Frontiers in Psychology*, 8, 888.
13. **Feng, J.**, Craik, F. I. M., Levine, B., Moreno, S., Naglie, G., & Choi, H.* (2017). Differential age-related changes in attention across an extended visual field. *European Journal of Ageing*, 14(2), 167-177.
14. Clark, H.* , & **Feng, J.** (2017). Age differences in the takeover of vehicle control and engagement in non-driving-related activities in simulated semi-autonomous driving. *Accident, Analysis & Prevention*, 106, 468-479.
15. Jacob, T.* , Snyder, W., **Feng, J.**, & Choi, H.* (2016). A neural model for straight line detection in the human visual cortex. *Neurocomputing*, 199, 185-196.

16. **Feng, J.**, Marulanda, S., & Donmez, B. (2014). Susceptibility to driver distraction questionnaire: development and relation to relevant self-reported measures. *Transportation Research Record: Journal of the Transportation Research Board*, 2434, 26-34.
17. **Feng, J.**, & Spence, I. (2014). Upper visual field advantage in localizing a target among distractors. *i-Perception*, 5(2), 97-100.
18. Spence, I., Jia, A., **Feng, J.**, Elserafi, J., & Zhao, Y. (2013). How speech modifies visual attention. *Applied Cognitive Psychology*, 27(5), 633-643.
19. **Feng, J.**, & Spence, I. (2013). A mixture distribution of spatial attention. *Experimental Psychology*, 60(3), 149-156.
20. **Feng, J.**, Pratt, J., & Spence, I. (2012). Attention and visuospatial working memory share the same processing resources. *Frontiers in Psychology*, 3, 103.
21. Wu, S., Cheng, C. K., **Feng, J.**, D'Angelo, L., Alain, C., & Spence, I. (2012). Playing a first-person shooter video game induces neuroplastic change. *Journal of Cognitive Neuroscience*, 24, 1286-1293.
22. Spence, I., & **Feng, J.** (2010). Video games and spatial cognition. *Review of General Psychology*, 14, 92-104.
23. Spence, I., Yu, J., **Feng, J.**, & Marshman, J. (2009). Women match men when learning a spatial skill. *Journal of Experimental Psychology: Learning, Memory and Cognition*, 35, 1097-1103.
24. Spence, I., DeYoung, C. G., & **Feng, J.** (2009). The technology profile inventory: construction, validation, and application. *Computers in Human Behavior*, 25, 458-465.
25. **Feng, J.**, Spence, I., & Pratt, J. (2007). Playing an action video game reduces gender difference in spatial cognition. *Psychological Science*, 18, 850-855.

Journal manuscripts under review or revision

1. Geden, M.* , Smith, A., Campbell, J., Spain, R., Amos-Binks, A., Mott, B., **Feng, J.**, & Lester, J. (under review). Construction and validation of an anticipatory thinking assessment. *Frontiers in Psychology - Cognitive Science*.
2. Cauffman, S.* , Deng, Y.* , Lau, M.* , Johnson, E., **Feng, J.**, Kaber, D., & Cunningham, C. (under review). Communicating road signage information in manual and highly automated driving: what we can learn from the literature. *IEEE Transactions on Human Machine Systems*.

Journal manuscripts in preparation

1. **Feng, J.**, McLaughlin, A. C., Choi, H.* , Clark, H.* , Jackson, E.* , Zhu, M. (in preparation). Drive Aware Task: laboratory and online studies.
2. Geden, M.* , Staicu, A., & **Feng, J.** (in preparation). Performance of a wandering mind on a car-following task.
3. Choi, H.* , Grünh, D., & **Feng, J.** (in preparation). Attentional abilities, but not age, predict driving performance of older drivers.

Peer-reviewed conference proceedings and papers

1. Sall, R.* & **Feng, J.** (2019). Drivers' Perceptions of Events: Implications for Theory and Practice. To appear in *The Proceedings of the 2019 International Annual Meeting of the Human Factors and Ergonomics Society*, Seattle, WA, USA.
2. Deng, Y.* , Cauffman, S.* , Lau, M.* , Johnson, E.* , Cunningham, C., Kaber, D., & **Feng, J.** (2019). On-Road and In-Vehicle Delivery of Service Signs: Effects of Information Source and Age. To appear in *The Proceedings of the 2019 International Annual Meeting of the Human Factors and Ergonomics Society*, Seattle, WA, USA.
3. Kasko, J.* , Choi, H., & **Feng, J.** (2019). Older Drivers' Differential Performance across Hazardous Scenarios. To appear in *The Proceedings of the 2019 International Annual Meeting of the Human Factors and Ergonomics Society*, Seattle, WA, USA.
4. Wilkinson, M.* , Pugh, Z.* , Crowson, A.* , Mayhorn, C., Gillan, D., & **Feng, J.** (2019). Manipulating Arousal in Virtual Reality: A feasibility study using slow-motion experience. To appear in *The Proceedings of the 2019 International Annual Meeting of the Human Factors and Ergonomics Society*, Seattle, WA, USA.
5. Choi, H.* & **Feng, J.** (2018). Older drivers' compensatory driving behaviors and self-awareness of functional declines. In *The Proceedings of the 2018 Transportation Research Board Meeting*, Washington, DC.
6. Namian, M.* , Albert, A., & **Feng, J.** (2018). Effects of distraction on hazard recognition and safety risk perception. In *the Proceedings of the Construction Research Congress 2018*.

7. Clark, H.* , McLaughlin, A. C., Williams, B., & **Feng, J.** (2017). Performance in takeover and characteristics of non-driving related tasks during highly automated driving in younger and older drivers. In *The Proceedings of the 2017 International Annual Meeting of the Human Factors and Ergonomics Society*, Austin, TX, USA.
8. Clark, H.* , McLaughlin, A. C., & **Feng, J.** (2017). Situational awareness and time to takeover when viewing simulated driving with high-level automation. In *The Proceedings of the 2017 International Annual Meeting of the Human Factors and Ergonomics Society*, Austin, TX, USA.
9. Sall, R. J.* , Wu, S., Spence, I. & **Feng, J.** (2017). Destination, seen unclearly: relevance of heads-up display information to driving is unrelated to its processing. In *The Proceedings of the 2017 International Annual Meeting of the Human Factors and Ergonomics Society*, Austin, TX, USA. [Best student paper finalist]
10. Barik, T.* , Smith, J., Lubick, K., Holmes, E., **Feng, J.**, Murphy-Hill, E., & Parnin, C. (2017). Do developers pay attention to error messages? In *The Proceedings of the 39th International Conference on Software Engineering*, Buenos Aires, Argentina.
11. Sall, R.* , & **Feng, J.** (2016). Better off alone: presence of one hazard impedes detection of another when presented together in simulated traffic scenes. In *the Proceedings of the 2016 International Annual Meeting of the Human Factors and Ergonomics Society*, Washington, DC, USA.
12. Choi, H.* , & **Feng, J.** (2016). Differential association of distinct attentional functions with specific driving errors and crash types. In *the Proceedings of the 95th Transportation Research Board Annual Meeting*, Washington, USA.
13. Choi, H.* , Nam, C., & **Feng, J.** (2015). A wandering mind cannot resolve conflicts in displayed information. In *the Proceedings of the 2015 International Annual Meeting of the Human Factors and Ergonomics Society*, San Francisco, CA, USA.
14. Clark, H.* , & **Feng, J.** (2015). Driver behavior at take-over in partial autonomous driving. In *the Proceedings of the 2015 International Annual Meeting of the Human Factors and Ergonomics Society*, San Francisco, CA, USA.
15. Geden, M.* , & **Feng, J.** (2015). Environment impacts mind wandering during driving. In *the Proceedings of the 2015 International Annual Meeting of the Human Factors and Ergonomics Society*, San Francisco, CA, USA.
16. Choi, H.* , Grünh, D., & **Feng, J.** (2015). Self-report attentional failures during driving relate to on-road crashes and simulated driving performance of older drivers. In *the Proceedings of the 94th Transportation Research Board Annual Meeting*, Washington, USA.
17. **Feng, J.**, Craik, F. I. M., Levine, B., Moreno, S., Naglie, G., Choi, H.* , & Medina, A.* (2015). Drive Aware: measuring attention in the context of driving. In *the Proceedings of the 94th Transportation Research Board Annual Meeting*, Washington, USA.
18. Choi, H.* , & **Feng, J.** (2014). Attentional Failures during Driving. In *the Proceedings of the 2014 International Annual Meeting of the Human Factors and Ergonomics Society*, Chicago, IL, USA.
19. Riggan, B. S.* , Snyder, W. E., Wang, X., & **Feng, J.** (2014). A human factors study of graphical passwords using biometrics. In X. Jiang, et al. (Eds.) *Pattern Recognition: Lecture Notes in Computer Science 2014*, 464-475.
20. **Feng, J.**, Marulanda, S., & Donmez, B. (2014). Susceptibility to driver distraction questionnaire: development and relation to relevant self-reported measures. In *the Proceedings of the Annual Meeting of the Transportation Research Board*, Washington, USA.
21. **Feng, J.**, & Donmez, B. (2013). Design of Effective feedback: understanding driver, feedback and their interaction. In *the Proceedings of the 7th International Symposium on Human Factors in Drivers Assessment, Training, and Vehicle Design*, Bolton Landing, NY, USA.
22. **Feng, J.**, & Spence, I. (2010). Left or right? Spatial arrangement for information presentation. In *the Proceedings of IBM CASCON 2010*, Toronto, Canada.
23. **Feng, J.**, & Spence, I. (2008). Video games change your brain. In *the Proceedings of Meaningful Play 2008*, East Lansing, Michigan, USA.
24. **Feng, J.**, & Spence, I. (2008). Attending to large dynamic displays. In *the Proceedings of Computer-Human Interaction (CHI) 2008*, Florence, Italy.
25. **Feng, J.**, & Spence, I. (2007). Effects of cognitive training on individual differences in attention. In *the Proceedings of HCI International 2007: Engineering Psychology and Cognitive Ergonomics, 13*, 279-287, Beijing, China.

26. **Feng, J.**, & Spence, I. (2006). Closing the gender gap by training using action video games. In *the Proceedings of the Second IASTED International Conference on Education and Technology*, Calgary, Canada.
27. **Feng, J.**, & Spence, I. (2006). Prepare women for careers in ICT using video games. In the *Proceedings of IBM CASCON 2006*, Toronto, Canada.

Book Chapters and Encyclopedia Entries

1. **Feng, J.** & Spence, I. (2018). Playing action video games boosts visual attention. In C. J. Ferguson (Ed.) *Video Game Influences on Aggression, Cognition, and Attention* (Chapter 8, pp.93-104). Springer International Publishing AG, part of Springer Nature. DOI:10.1007/978-3-319-95495-0_8
2. Sall, R. J.* , Choi, H.* , & **Feng, J.** (2018). Bringing older drivers up to speed with technology: cognitive changes, training, and advances in transportation technology. In R. Pak, & A. McLaughlin (Eds.) *Aging, Technology and Health* (Chapter 4, pp.81-111). Elsevier.
3. Choi, H.* & **Feng, J.** (2017). Using video games to improve spatial abilities. Invited book chapter in R. Zheng, & M. Gardner (Eds.) *The Handbook of Research on Serious Games for Educational Applications* (Chapter 5, pp.93-114).
4. McLaughlin, A. C., **Feng, J.**, & Whitlock, L. (2016). Video Game Training. In S. Whitbourne (Eds.) *The Encyclopedia of Adulthood and Aging*. Wiley-Blackwell.
5. Choi, H.* , & **Feng, J.** (2016). General Slowing Hypothesis. In S. Whitbourne (Eds.) *The Encyclopedia of Adulthood and Aging*. Wiley-Blackwell.
6. McLaughlin, A. C., **Feng, J.**, & Pak, R. (2015). Design for lifelong learning and fulfillment: convergence of science and technology in a hierarchy of needs. In W. S. Bainbridge, & M. C. Roco (Eds.) *Handbook of Science and Technology Convergence* (pp.1073-1087). Springer.

Technical Reports

1. Lester, J., **Feng, J.**, Mott, B., Smith, A., Geden, M.* , Spain, R. (2018). *Securing Critical Infrastructure: Anticipatory Thinking Environments, Modeling, and Measuring*. Technical report submitted to Laboratory for Analytic Sciences.
2. **Feng, J.**, Kasko, J.* , Foss, R., Goodwin, A., & Wang, Y. (2018). *Needs and Challenges of Older Drivers in North Carolina: Development of the DriveAware Assessment*. Technical report submitted to North Carolina Governor's Highway Safety Program.
3. Lester, J., **Feng, J.**, Mott, B., Smith, A., Geden, M.* (2017). *Securing Critical Infrastructure: Anticipatory Thinking Environments, Modeling, and Measuring*. Technical report submitted to Laboratory for Analytic Sciences.
4. **Feng, J.**, Kasko, J.* , Foss, R., Goodwin, A., & Wang, Y. (2017). *Needs and Challenges of Older Drivers in North Carolina: Crash Patterns, Driving Habits, Competence and Cognitive Functioning*. Technical report submitted to North Carolina Governor's Highway Safety Program.
5. **Feng, J.**, & Donmez, B. (2013). *Designing feedback to induce safer driving behaviors: A literature review and a model of driver-feedback interaction*. Technical report submitted to Toyota Collaborative Safety Research Center.

Presentations and Posters

Conference Presentations

1. Sall, R.* & **Feng, J.** (2019). Drivers' Perceptions of Events: Implications for Theory and Practice. To be presented at *The 2019 International Annual Meeting of the Human Factors and Ergonomics Society*, Seattle, WA, USA.
2. Deng, Y.* , Cauffman, S.* , Lau, M.* , Johnson, E.* , Cunningham, C., Kaber, D., & **Feng, J.** (2019). On-Road and In-Vehicle Delivery of Service Signs: Effects of Information Source and Age. To be presented at *The 2019 International Annual Meeting of the Human Factors and Ergonomics Society*, Seattle, WA, USA.
3. Kasko, J.* & **Feng, J.** (2019). Older Drivers' Differential Performance across Hazardous Scenarios. . To be presented at *The 2019 International Annual Meeting of the Human Factors and Ergonomics Society*, Seattle, WA, USA.

4. Clark, H.* , McLaughlin, A., Williams, B., & **Feng, J.** (2017). Performance in takeover and characteristics of non-driving related tasks during highly automated driving in younger and older drivers. Presentation at *the 2017 International Annual Meeting of the Human Factors and Ergonomics Society*, Austin, TX, USA.
5. Sall, R. J.* , Wu, S., Spence, I. & **Feng, J.** (2017). Destination, seen unclearly: relevance of heads-up display information to driving is unrelated to its processing. Presentation at *the 2017 International Annual Meeting of the Human Factors and Ergonomics Society*, Austin, TX, USA.
6. Choi, H.* , Nam, C., & **Feng, J.** (2015). A wandering mind cannot resolve conflicts in displayed information. Presentation at *the 2015 International Annual Meeting of the Human Factors and Ergonomics Society*, San Francisco, CA, USA.
7. Choi, H.* , & **Feng, J.** (2014). Attentional failures during driving. Presentation at the *2014 International Annual Meeting of the Human Factors and Ergonomics Society*, Chicago, IL, USA, October 2014.
8. **Feng, J.** (2013). Care for brain health in older drivers. Presentation at *North Carolina State University Healthcare IT Forum*, Raleigh, North Carolina, USA, November 2013.
9. **Feng, J.**, Craik, F. I. M., Levine, B., Moreno, S., & Naglie, G. (2012). Designing a fitness-to-drive measure for older drivers. Presentation at *the 13th Inter-University Workshop on Human Factors*, Toronto, Canada, October 2012.
10. **Feng, J.**, Craik, F. I. M., Levine, B., Moreno, S., & Naglie, G. (2012). Aging, attention and training. Presentation at *Toronto Rehab DriverLAB*, Toronto, Canada, February 2012.
11. **Feng, J.**, & Spence, I. (2010). Left or right? Spatial arrangement for information presentation. Presentation at *IBM CASCON 2010*, Toronto, Canada, November 2010.
12. **Feng, J.**, & Spence, I. (2010). Play changes the brain. Presentation at *INPLAY 2010*, Toronto, Canada, May 2010.
13. **Feng, J.**, & Spence, I. (2008). Video games change your brain. Presentation at *Meaningful Play 2008*, East Lansing, Michigan, USA, October 2008.
14. **Feng, J.**, & Spence, I. (2007). Effects of cognitive training on individual differences in attention. Presentation at *HCI International 2007*, Beijing, China, July 2007.
15. **Feng, J.** (2007). Effects of video game playing on individual differences in attention. Presentation at *the 8th Annual Inter-University Workshop on Human Factor Engineering*, Toronto, Canada, January 2007.
16. **Feng, J.**, & Spence, I. (2006). Closing the gender gap by training using action video games. Presentation at *the Second IASTED International Conference on Education and Technology*, Calgary, Canada, July 2006.

Conference Posters

1. Wilkinson, M.* , Pugh, Z.* , Crowson, A.* , Mayhorn, C., & **Feng, J.** (2019). Manipulating Arousal in Virtual Reality: A feasibility study using slow-motion experience. To be presented at *The 2019 International Annual Meeting of the Human Factors and Ergonomics Society*, Seattle, WA, USA.
2. Wilkinson, M.* , Pugh, Z.* , Crowson, A.* , Mayhorn, C., & **Feng, J.** (2019). Manipulating arousal in virtual reality: A feasibility study using slow-motion experience. Poster presented at *the 2019 North Carolina Cognition Conference*, Raleigh, NC, USA.
3. Sall, R.* , & **Feng, J.** (2019). Event perception in the driver's seat. Poster presented at *the 2019 North Carolina Cognition Conference*, Raleigh, NC, USA.
4. Wagner, B.* , Geden, M., & **Feng, J.** (2019). The influence of mind wandering and inattentive blindness during driving in a simulator. Poster presented at *the 2019 North Carolina Cognition Conference*, Raleigh, NC, USA.
5. Kasko, J.* , Choi, H., & **Feng, J.** (2019). Older drivers' differential performance across hazard scenarios. Poster presented at *the 2019 North Carolina Cognition Conference*, Raleigh, NC, USA.
6. Sall, R.* , Lefebvre, E., Neupert, S. D., & **Feng, J.** (2018). What can intraindividual variability teach us about dual-target visual search? Poster presented at the *2018 Annual Meeting of the Vision Science Society*, St. Pete Beach, FL, USA.
7. Geden, M.* , Smith, A., Campbell, J., Amos-Binks, A., **Feng, J.**, & Lester, J. (2018). Toward adaptive support for anticipatory thinking. Poster presented at the *Technology, Mind, and Society Conference*, Washington, DC, USA.
8. Choi, H.* & **Feng, J.** (2018). Older drivers' compensatory driving behaviors and self-awareness of functional declines. Poster presented at *The Proceedings of the 2018 Transportation Research Board Meeting*, Washington, DC.

9. Jackson, E.* , **Feng, J.**, Clark, H.* , & McLaughlin, A. C. (2018). Attention and take-over performance in semi-autonomous vehicles. *Poster presented at the 2018 Meeting of the North Carolina Cognition Group, UNC-Chapel Hill, NC, USA.*
10. Geden, M.* , Staicu, A., & **Feng, J.** (2017). A mixed-effects modeling approach to studying the impact of mind wandering on selective attention. Poster presented at *the 2017 Joint Statistical Meetings, Baltimore, MD, USA.*
11. Clark, H.* , McLaughlin, A. C., & **Feng, J.** (2017). Situational awareness and time to takeover when viewing simulated driving with high-level automation. Poster presented at *the 2017 International Annual Meeting of the Human Factors and Ergonomics Society, Austin, TX, USA.*
12. Geden, M.* , Staicu, A., & **Feng, J.** (2017). A mixed-effects modeling approach to studying the impact of mind wandering on selective attention. Poster presented at *the 2017 Joint Statistical Meetings, Baltimore, MD, USA.*
13. Clark, H.* , & **Feng, J.** (2017). Situational Awareness in Automated Vehicles. Poster presented at *the 2017 Southeast Human Factors Conference (SHARC), Raleigh, NC, USA.*
14. Kasko, J.* , & **Feng, J.** (2017). Physiological measures of hazard perception. Poster presented at *the 2017 Southeast Human Factors Conference (SHARC), Raleigh, NC, USA.*
15. Choi, H.* , & **Feng, J.** (2016). Distinct attentional functions are differentially associated with specific driving errors and crash types. Poster presented at *the 2015 North Carolina Cognition Conference, Wake Forrest, NC, USA.*
16. Sall, R.* , & **Feng, J.** (2016). You've got two good eyes but you still don't see: the effect of salience in dual hazard perception. Poster presented at *the 2016 North Carolina Cognition Conference, Wake Forrest, NC, USA.*
17. Clark, H.* , & **Feng, J.** (2016). Take-over in partial autonomous driving. Poster presented at *the 2016 North Carolina Cognition Conference, Wake Forrest, NC, USA.*
18. Choi, H.* , & **Feng, J.** (2016). Distinct attentional functions are differentially associated with specific driving errors and crash types: evidence from a preliminary study. Poster presented at *the 95th Transportation Research Board Annual Meeting, Washington, USA.*
19. Clark, H.* , & **Feng, J.** (2015). Driver behavior at take-over in partial autonomous driving. Poster presented at *the Proceedings of the 2015 International Annual Meeting of the Human Factors and Ergonomics Society, San Francisco, CA, USA.*
20. Geden, M.* , & **Feng, J.** (2015). Environment impacts mind wandering during driving. Poster presented at *the 2015 International Annual Meeting of the Human Factors and Ergonomics Society, San Francisco, CA, USA.*
21. Choi, H.* , & **Feng, J.** (2015). Attentional functions of a wandering mind. Poster presented at *the 2015 North Carolina Cognition Conference, Elon, NC, USA.*
22. Clark, H.* , & **Feng, J.** (2015). The temporal effects of visual cues: how reliability affects task performance. Poster presented at *the 2015 North Carolina Cognition Conference, Elon, NC, USA.*
23. Geden, M.* , & **Feng, J.** (2015). Mind wandering during driving. Poster presented at *the 2015 North Carolina Cognition Conference, Elon, NC, USA.*
24. Choi, H.* , Grünh, D., & **Feng, J.** (2015). Self-report attentional failures during driving relate to on-road crashes and simulated driving performance of older drivers. Poster presented at *the 94th Transportation Research Board Annual Meeting, Washington, USA.*
25. **Feng, J.**, Craik, F. I. M., Levine, B., Moreno, S., Naglie, G., Choi, H.-S.* , & Medina, A.* (2015). Drive Aware: measuring attention in the context of driving. Poster presented at *the 94th Transportation Research Board Annual Meeting, Washington, USA.*
26. Marulanda, S., **Feng, J.**, & Donmez, B. (2014). Susceptibility to driver distraction questionnaire: development and relation to relevant self-reported measures. Poster at *the Proceedings of the Annual Meeting of the Transportation Research Board, Washington, USA, January 2014.*
27. **Feng, J.**, & Donmez, B. (2013). Design of effective feedback: understanding driver, feedback and their interaction. Poster at *the 7th International Symposium on Human Factors in Driver Assessment, Training, and Vehicle Design, Bolton Landing, New York, USA, June 2013.*
28. **Feng, J.**, & Spence, I. (2012). Bias in the spatial distribution of attention. Poster at *the Annual Conference of the Cognitive Neuroscience Society, Chicago, USA, April 2012.*
29. **Feng, J.**, Spence, I., & Wu, S. (2012). Gender differences in working memory and mental rotation. Poster at *the Lake Ontario Visionary Establishment Annual Meeting, Niagara Falls, Canada, February 2012.*

30. **Feng, J.**, & Spence, I. (2012). Top-down control of attention across an extended visual field. Poster at *the Lake Ontario Visionary Establishment Annual Meeting*, Niagara Falls, Canada, February 2012.
31. **Feng, J.**, & Spence, I. (2010). Play changes the brain. Poster at *INPLAY 2010*, Toronto, Canada, May 2010.
32. Spence, I., & **Feng, J.** (2009). Video games and spatial cognition. Poster at *the Annual University of Toronto's Knowledge Media Design Institute 2009*, Toronto, Canada, December 2009.
33. **Feng, J.**, & Spence, I. (2008). Attending to large dynamic displays. Poster at *Computer-Human Interaction (CHI) 2008*, Florence, Italy, April 2008.
34. **Feng, J.**, & Spence, I. (2006). Prepare women for careers in ICT using video games. Poster at *IBM CASCON 2006*, Toronto, Canada, October 2006.

Invited Talks

1. **Feng, J.** (2019). Attention and Human Factors in Driving. Invited to the UNC Highway Safety Research Center, Chapel Hill, NC, April 2019.
2. **Feng, J.** (2017). Attention and Human Factors in Driving. Invited to Humans and Autonomy Lab, *Duke University*, Durham, NC, August 2017.
3. **Feng, J.** (2017). Attention in Transportation Human Factors Research. Invited to *Key Lab of Traffic Engineering, Beijing University of Technology*, Beijing, China, July 2017.
4. **Feng, J.** (2017). Attention and Inattention in Driving. Invited to *Department of Psychology, Zhejiang University*, Hangzhou, Zhejiang, China, June 2017.
5. **Feng, J.** (2017). The Paradox of Distraction. Invited to *Department of Psychology, Sun Yet-San University*, Guangzhou, Guangdong, China, June 2017.
6. **Feng, J.** (2017). Aging, Driving and Automation. Invited to the *Autonomous Vehicle Workshop* organized by Triangle J Council of Governments, Durham, North Carolina, April 2017.
7. **Feng, J.** (2016). Aging and Driving. Invited to the conference on *Aging and Environment*, Raleigh, North Carolina, October 2014.
8. **Feng, J.** (2014). Attentional Failures during Driving. Invited to *the Carolina Chapter of Human Factors and Ergonomics Society*, February 2014.
9. **Feng, J.** (2013). Play Changes the Brain. Invited to *Ontario Science Center*, Toronto, Canada, April 2013.
10. **Feng, J.** (2011). Human Attention and Display Design. Invited to *Nokia Research Center Beijing*, Beijing, China, April 2011.
11. **Feng, J.** (2011). Gender and Spatial Cognition. Invited to *Institute of Psychology, Chinese Academy of Sciences*, Beijing, China, April 2011.
12. **Feng, J.**, & Spence, I. (2010). Play Changes the Brain. Invited to *INPLAY 2010*, Toronto, Canada, April 2010.
13. **Feng, J.**, & Spence, I. (2007). Becoming more Attentive by Playing Video Games. Invited to *Defence Research and Development (DRDC) Canada*, Toronto, Canada, October 2007.

Select Media Exposure

1. Dunn, N. (2017). Mind on the road. NC State Accolades, October 2017.
2. Edmé, B. (2017). NC State researchers use simulator to make roads safer. *CBS North Carolina*, June 21, 2017.
3. Fleming, N. (2013). Why video games may be good for you. *BBC (Future)*, August 26, 2013.
4. Bagley, K. (2012). Get your game on. *YouBeauty*, November 8, 2012.
5. Author. (2007). Nurture strikes back: some sex differences that look biological are really cultrue. *The Economist*, September 7, 2007.
6. Elias, C. (2007). Playing video games reduces sex differences in spatial skills. *University of Toronto Bulletin*, September 25, 2007.
7. Author. (2007). Playing video games reduces sex differences in spatial skills. *ScienceDaily*, October 26, 2007.
8. Rempel, S. (2007). Games improve women's spatial skills. *The Toronto Star*, November 8, 2007.

9. Carpenter, S. (2007). Shoot first, ace geometry later: video games may eliminate the gender gap in spatial skills. *Scientific American Mind*, December 2007.
10. Zacharzewski, M. (2007). Graj, bedziesz lepszy z matmy! (in Polish). *GameRanking*, December 2007.

Teaching

Regularly teaching both undergraduate and graduate courses at NC State.

Biological Psychology (one of the four core courses in our undergraduate curriculum)

Ergonomics (an interdisciplinary human factors course at the undergraduate level)

Human Attention (a graduate seminar and new addition to the graduate curriculum)

Physiological Psychology (a core course in our graduate curriculum)

2019 Fall	Biological Psychology	PSY 430 002	42 students
2019 Spring	Biological Psychology	PSY 430 002	49 students
2018 Fall	Biological Psychology	PSY 430 001	119 students
2018 Fall	Biological Psychology	PSY 430 002	41 students
2018 Spring	Physiological Psychology	PSY 502 001	16 students
2018 Spring	Human Attention	PSY 710 001	18 students
2017 Fall	Biological Psychology	PSY 430 002	52 students
2017 Fall	Ergonomics	PSY 340 001	32 students
2017 Spring	Biological Psychology	PSY 430 001	50 students
2017 Spring	Biological Psychology	PSY 430 002	45 students
2016 Fall	Ergonomics	PSY 340 001	43 students
2016 Fall	Biological Psychology	PSY 430 001	47 students
2016 Spring	Human Attention	PSY 710 003	13 students
2016 Spring	Biological Psychology	PSY 430 001	33 students
2015 Fall	Biological Psychology	PSY 430 001	47 students
2015 Fall	Biological Psychology	PSY 430 002	43 students
2015 Spring	Ergonomics	PSY 430 001	27 students
2015 Spring	Biological Psychology	PSY 430 001	49 students
2014 Fall	Ergonomics	PSY 340 001	43 students
2014 Fall	Biological Psychology	PSY 430 001	51 students
2014 Spring	Ergonomics	PSY 430 001	23 students
2014 Spring	Human Attention	PSY 710 003	9 students
2013 Fall	Biological Psychology	PSY 430 001	44 students

Research Advising

Graduate Graduate

Chair of the committee (graduated, n=3)

Michael Geden (PhD, Psychology), 2018

Current position: Postdoctoral fellow at the Center of Educational Informatics at NC State

HeeSun Choi (PhD, Psychology), 2016

Current position: Fellow at the National Institute for Occupational Safety and Health (NIOSH)

Hallie Clark (Master, Psychology), 2016

Current position: PhD student at NC State

Chair or co-chair of the committee (current, n=6)

Yulin Deng (PhD student, Industrial Engineering), 2018 –

Blake Wagner (PhD student, Psychology), 2018 –

Michael Wilkinson (PhD student, Psychology), 2017 –

Jonathan Kasko (PhD student, Psychology), 2016 –
 Hallie Clark (PhD student, Psychology), 2016 –
 Robert Sall (PhD student, Psychology), 2015 –

Committee member (graduated, n=22)

Laura Matalenas (PhD, Psychology), 2019
 James Baker (PhD, Psychology), 2019
 Mei Lau (PhD, Industrial Engineering), 2019
 Thomas Stokes (PhD, Psychology), 2018
 Titus Barik, (PhD, Computer Science), 2018
 John Grishin (PhD, Psychology), 2018
 John Sprufera (PhD, Psychology), 2018
 Mostafa Namian (PhD, Civil Engineering), 2017
 Yulin Deng (Master, Industrial Engineering), 2017
 Laura Matalenas (Master, Psychology), 2017
 Michelle Taub (PhD, Psychology), 2017
 Allaire Welk (PhD, Psychology), 2017
 Jenna Darrah (Master, Psychology), 2018
 James Shirley (Master, Industrial Engineering), 2018
 Thomas Stokes (Master, Psychology), 2017
 Addison English (Master, Psychology), 2016
 Mei Lau (Master, Industrial and System Engineering), 2016
 Olivia Morejon (Master, Industrial and System Engineering), 2016
 Olga Zielinska (Master, Psychology), 2015
 Alex Trowbridge (Master, Psychology), 2015
 Allaire Welk (Master, Psychology), 2015
 William Grenhart (Master, Psychology), 2015

Committee member (current, n=9)

Emily Wright (PhD student, Psychology), 2019 –
 Patrick Lawson (PhD student, Psychology), 2019 –
 Na Young Kim (PhD student, Industrial Engineering), 2019 –
 Federico Scholcover (PhD student, Psychology), 2019 –
 Russell House (Master student, Psychology), 2019 –
 Byungsoo Kim (PhD student, Design), 2018 –
 Yue He (PhD student, Design), 2017 –
 Stephen Cauffman (PhD student, Psychology), 2016 –
 Jesseca Taylor (PhD student, Psychology), 2015 –

Undergraduate

PSY 499 (Individual Study in Psychology) Fall 2019
 8 students: Angela Acosta, Joshua Blair, Emily Cline, Lingfan Cui, Brock McKenzie, Nicole Patterson, Bethany Salapek, Seth Wiggs

PSY 499 (Individual Study in Psychology) Spring 2019
 8 students: Angela Acosta, Austen Bauer, Sara Clore, Kaitlyn Marley, Brock McKenzie, Bethany Salapek, Seth Wiggs, Alex Young

PSY 499 (Individual Study in Psychology) Fall 2018
 7 students: Ivan Guerrero, Celia Henderson, Jaclyn Komoski, Kylie Litaker, Brock McKenzie, Ashleigh Polisky, Luke Short

PSY 499 (Individual Study in Psychology) Summer 2018
 1 student: Celia Henderson

PSY 499 (Individual Study in Psychology)	Spring 2018
10 students: Michelle Cota Miranda, Derrick Cramp, Cecily Jones, Elijah Lockhart, Emma Marand, Kyla Paynes, Ashlyn Shore, Luke Short, Charles White, Philip Zendels	
PSY 499 (Individual Study in Psychology)	Fall 2017
10 students: Anna Bringle, Sara Clore, Michelle Cota Miranda, Kyle Lorenzo, Alexander Olosu, Ashlyn Shore, Luke Short, Charles White, Grace Yusckat, Philip Zendels	
PSY 498 (Psychology Honors Seminar)	Spring 2017
1 student: Michael Wilkinson	
PSY 499 (Individual Study in Psychology)	Spring 2017
7 students: Anna Bringle, Sara Clore, Michelle Cota Miranda, Geoffrey Richardson, Lindsey Thayer, Grace Yusckat, Philip Zendels	
PSY 498 (Psychology Honors Seminar)	Fall 2016
1 student: Michael Wilkinson	
PSY 499 (Individual Study in Psychology)	Fall 2016
4 students: Lillian Gates, Laura McAtee, Geoffrey Richardson, Philip Zendels	
PSY 499 (Individual Study in Psychology)	Spring 2016
2 students: Darrius Anderson, Shannon Sauls	
PSY 499 (Individual Study in Psychology), North Carolina State University	Fall 2015
2 students: Jesse DeLaRosa, Katherine Reavis	
PSY 499 (Individual Study in Psychology), North Carolina State University	Spring 2015
5 students: Ahmet Erbas, Jennifer Funaro, Zachary McRorie, Camilo Uribe Bernal, Jackson Wood	
PSY 499 (Individual Study in Psychology), North Carolina State University	Fall 2014
5 students: Annie Melton, Katherine Reavis, Erica Shade, Lesley Winchester, Jackson Wood	
PSY 499 (Individual Study in Psychology), North Carolina State University	Spring 2014
3 students: Hallie Clark, Sean McClain, Katherine Reavis	
PSY 499 (Individual Study in Psychology), North Carolina State University	Fall 2013
2 students: Hallie Clark, Jenny Yann	
Research interns, North Carolina State University	Summer 2014, 2015, 2016, 2018
5 students: Andy Jin (BSc, UNC-Chapel Hill), Anika Nurin Khan (Freshman, UNC-Chapel Hill), Phoebe Pradhan (Junior, UNC-Chapel Hill), Joseph Sanchez (Junior, NCSU), Kylie Litaker (Junior, NCSU)	

Professional Activities and Service

Technical Group Chair-elect (2019)

Aging Technical Group, Human Factors and Ergonomics Society (HFES)

Program Chair (2018)

AND10: User Characteristics, Transportation Research Board (TRB)

Video Program Co-Chair (2018)

International Conference on Automotive User Interfaces and Interaction Vehicular Applications (AutomotiveUI)

Chapter President (2016)

Carolina Chapter, Human Factors and Ergonomics Society (HFES)

Program Chair (2015)

Aging Technical Group, Human Factors and Ergonomics Society (HFES)

Member

Transportation Research Board (TRB) Human Factors in Road Vehicle Automation Joint Subcommittee (invited)

Transportation Research Board (TRB) Standing Committee on Vehicle User Characteristics (invited)

Association of Psychological Science (APS)

American Psychological Association (APA), Division 21: Applied Experimental and Engineering Psychology
 American Psychological Association (APA), Applied Psychology Advisory Group (representing Division 21)
 Human Factors and Ergonomics Society (HFES)

AdHoc Reviewer (journals)

Accident Analysis and Prevention
 ACM Transactions on Computer Human Interaction
 Acta Psychologica
 Advances in Mechanical Engineering
 Applied Ergonomics
 Attention Perception and Psychophysics
 Biological Psychiatry
 Canadian Journal of Behavioral Science
 Cerebral Cortex
 Child Development
 IEEE Transactions on Human-Machine Systems
 International Journal of Human-Computer Interaction
 Journal of Applied Gerontology
 Journal of Individual Differences
 Journal of Gerontology: Psychological Sciences
 JoVE
 PLOS ONE
 Psychology and Violence
 Psychonomic Bulletin & Review
 Quarterly Journal of Experimental Psychology
 Scholar and Feminist Online
 Traffic Injury Prevention
 Transportmetrica A: Transport Science

Reviewer (conferences)

Conference on Computer Human Interaction (CHI)
 FuturePlay
 International Conference on Automotive User Interfaces and Interaction Vehicular Applications (AutomotiveUI)
 The Annual Human Factors and Ergonomics Society Meetings (HFES)
 Transportation Research Board (TRB) Meetings

AdHoc Reviewer (grants)

US National Science Foundation (NSF)
 Natural Sciences and Engineering Research Council of Canada (NSERC)
 Netherlands Organisation for Scientific Research (NWO)
 Israel Ministry of Science Technology and Space
 Swiss National Science Foundation (SNSF)

Service to the University

Member, College Faculty Award Review Committee	2018 –
Psychology department's representative on the International Programs committee	2017 –
Member, College of Humanities and Social Sciences diversity advisory committee	2017 –
Member, Psychology Graduate Student Award Review Committee	2017 –
Member, Psychology Department Undergraduate Curriculum Committee	2016 –
Organizer, Human Factors and Ergonomics Brownbag Series	2015 –
Advisory Board Member, Assistant and Associate Professors' Community at NCSU	2015 –
Adhoc local context expert, NCSU Institutional Review Board	2016

Reviewer of department nomination to the CHASS dissertation award	2015
Speaker, Building Future Faculty Program at NCSU	2015
Member, Psychology Department Award Committee	2014 – 2018

Service to the Community

Invited panelist, Annual Research Symposium of the Laboratory for Analytic Sciences	2018
Invited panelist, Every Second Matters Distracted Driving Symposium	2018
Invited panelist, workshop by Triangle J Council of Governments (North Carolina)	2017
Member, North Carolina Senior Driver Safety Coalition	2015 –
Treasurer, Carolina Chapter of the Human Factors and Ergonomics Society	2014 – 2015
Technical Program Committee Member, Conference paper program of Future Play	2007 – 2010